



Castrol South Africa

Technical Data Sheet

CASTROL RUSTILO AQUA PR

DESCRIPTION:

Castrol Rustilo Aqua PR may be used as either a white spirits or water-borne corrosion preventive/pressing lubricant, being a slightly turbid brown liquid in the neat state. The protective film is oily and slightly greasy.

APPLICATION:

- Castrol Rustilo Aqua PR has been specifically formulated to meet the body/panel pressing and corrosion-protection requirements of the motor vehicle manufacturing industry.
- Castrol Rustilo Aqua PR represents a major breakthrough in the drawing/rust preventive market, being used neat as a drawing lubricant on deep drawing or as an emulsion for operations of lesser drawing severity.

METHOD OF APPLICATION:

When used as a drawing compound Castrol Rustilo Aqua PR may be applied neat or as an emulsion, (depending on the severity of the draw). Means of application is by roller, wipe application, etc. Successful deep drawing operations include box sections, wheel wells, petrol tanks, etc.

AS A WATER-BORNE RUST PREVENTIVE:

Conventional rust preventives work by the process of placing a physical barrier between the metal surface being protected and the outside environment. With these products, the film-forming material is deposited by evaporation of a volatile petroleum solvent, the solvent content being as high as 70% - 80%. With Castrol Rustilo Aqua PR, however, the film-forming material may be deposited in the form of an emulsion with water. On application the emulsion breaks, the water evaporates and the rust-preventive film is left behind. This is an irreversible process and film will not re-emulsify.

NOTE: Castrol Rustilo Aqua PR may also be mixed with white spirits in place of water, upon which it behaves as a conventional temporary corrosion preventive.

METHODS OF APPLICATION AS A CORROSION PREVENTIVE:

Brushing, spraying or by immersion.	
Dilution Ratios:	v/v
As a water-borne rust preventive	30 % Rustilo Aqua PR, 70% water
As a conventional rust preventive	30 % Rustilo Aqua PR, 70% white spirits (depending on % solids required)
As a pressing lubricant	Neat or 30 % Rustilo Aqua PR, 70% water (depending on the severity of the drawing operation)

PACKAGING:

Castrol Rustilo Aqua PR is available in bulk and 210lt drums.

Page 2 of Data sheet

BENEFITS:

- Consequently reducing stock –holding requirements and saving on inventory costs.
- Very cost-effective – expensive solvents.
- Reduced stock holding – no need to hold flammable solvents in stock.
- Safe and pleasant to use.
- Non-polluting to the atmosphere.
- No ventilation required.
- 30 % dispersion in water offers approximately 6 months protection indoors.
- Compatible with alkali-wash systems ensuring easy removal from pressed panels with no adverse effect on further process requirements, E-Coat, etc.
- Dual purpose – may be used as a pressing lubricant / corrosion preventive.
- Ensures reduced product drag-out when used as a pressing lubricant. (Reduced product consumption).
- Low viscosity in the neat state and fire risk.
- No obnoxious solvent vapour during use.

TYPICAL CHARACTERISTICS:

Castrol Rustilo Aqua PR		
Product Code No.	74334	
Concentrate:		
Colour	Red/Black	
Appearance	Hazy in stream	
Density at 20°C	0,932	
Viscosity at 40°C	135,9	
Thermal Stability - 24 hours at 0°C	Stable/Free-Flowing	
Thermal Stability - 24 hours at 50°C	Bright & Clear - No Separation	
Emulsion:		
Stability - 24 hours (30% v/v) at 0°C	No Separation	
Stability - 24 hours (30% v/v) at 50°C	Slight Oil Separation	
Viscosity at 40°C (mm ² /s) (30% v/v)	7	
Stability - 24 hours (50% v/v) at 0°C	No Separation	
Stability - 24 hours (50% v/v) at 50°C	Oil Separation - No Water Separation or Layering	
Stability - 24 hours (50% v/v) at ambient	Trace Oil Separation - No Layering	
Viscosity (50% v/v) at 25°C (CP)	1700	
Humidity tests:		
(98/100%) at 40°C 30% emulsion)		
Rust Spots	After 456 hours	
Less than 2% rust	After 948 hours	
Rust Protection 30% Emulsion Indoors (coastal area Durban)	3 months minimum	
Pressing Performance:		
(30% Emulsion in Tap Water)		
Roell & Korthaus Pressing Test	D.E.F. = F/G/1218	
Falex test at 1250lb	Pass	
4 - Ball Wear at 60kg for 5 minutes (W.S.D.) mm	0,54	
Coverage & Film Thickness:		
% Emulsion (v/v)	Coverage m ² /litre	Film thickness (micron)
20% Emulsion	268	0,65
25% Emulsion	110	1,9
30% Emulsion	53,64	4,8

Last Edited: 06/11/2003